

## REMARKS

This paper is responsive to the Office Action dated July 26, 2007 and the Advisory Action dated November 16, 2007. Entry of the amendments and remarks submitted herein and reconsideration of the claimed subject matter is respectfully requested.

The Office Action and the Advisory Action dated have been carefully reviewed and the foregoing amendments are made in response thereto. Specifically, an Amendment responsive to the Office Action dated July 26, 2007 was filed on October 26, 2007. However, in the subsequent Advisory Action dated November 16, 2007, the Examiner asserts that the Amendment of October 26, 2007 raise new issues that would require further consideration and search. To expedite prosecution of the present application, Applicants has filed an Request for Continued Examination concurrently with paper. In view of the above amendments and following remarks, Applicants respectfully request reconsideration and reexamination of this application and timely allowance of the pending claims.

Before turning to the merits of the Office Action, Applicants acknowledge with thanks the Examiner's statement that claims 30, 36, and 37 are allowable.

By this Amendment, claims 1, 27 to 29, 31, 34, and 35 have been amended to positively recite that the at least one peptide and/or protein subunit is covalently bonded to the at least one polysaccharide and/or proteoglycan subunit. Support for this Amendment can be found at least in paragraph [0015] on page 4 of the specification as originally filed. Thus, no prohibitive new matter has been introduced by the amendments to the claims.

Upon entry of this amendment, claims 1 to 5 and 8 to 37 are pending in the application, of which claims 3, 8 to 18, 20 to 24, and 33 are withdrawn from consideration.

### Summary of the Office Action

1. The Examiner has withdrawn all rejections under 35 U.S.C. §§ 101 and 112, second paragraph and the rejections to claims 1, 2, 4, 19, 25, 26, 29, and 31 under 35 U.S.C. 102(b) over Cilento et al. (US 4,773,408 B1).
2. Claims 1, 2, 4, 5, 26, 28, 31, 34, and 35 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Kleinman et al. (Biochemistry 21: 6188-6193, 1982).
3. Claims 1, 2, 4, 5, 19, 25, 26, and 31 are rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Miyamoto et al. (US 2004/0136977 A1).

4. Claims 27 and 29 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Chudzik et al. (US 6,410,044 B1).

5. Claim 32 is objected to as allegedly dependent upon a rejected base claim.

**Claim Rejections under 35 U.S.C. § 102**

Claims 1, 2, 4, 5, 26, 28, 31, 34, and 35 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Kleinman et al. (Biochemistry 21: 6188-6193, 1982). Specifically, the Examiner asserts that the tissue described in Kleinman et al. is isolated, and thereby is an artificial biomaterial no longer in its natural environment. Therefore, the Examiner concludes that Kleinman et al. teach the limitation of artificial biomaterial as claimed in the present application.

Claims 1, 2, 4, 5, 19, 25, 26, and 31 are rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Miyamoto et al. (US 2004/0136977 A1). Specifically, the Examiner alleges that Miyamoto et al. disclose cell adhesion peptides with RGD amino acid sequences by reciting fibrin and laminin.

Claims 27 and 29 are rejected under 35 U.S.C. § 102(b) as anticipated by Chudzik et al. (US 6,410,044 B1). Specifically, the Examiner alleges that Chudzik et al. disclose a polymeric backbone selected from the group consisting of synthetic macromers, derivatizable naturally occurring polymers, polysaccharides, and proteins.

Applicants respectfully traverse. More specifically, Applicants respectfully submit that the claims, as amended, are not anticipated by any of the cited references because none of the cited reference discloses each and every limitations of the claimed invention.

Claims 1, 27 to 29, 31, 34, and 35 have been amended to positively recite that the at least one peptide and/or protein subunit is covalently bonded to the at least one polysaccharide and/or proteoglycan subunit. This Amendment merely incorporates the definition of “bioactive polymer” in the originally filed specification (paragraph [0015], page 4) into the claims, and thereby does not introduce any new limitation or new matter to the claims.

Kleinman et al. do not disclose a synthetic biomaterial as claimed by the present application. According to the Merriam-Webster Dictionary, 10<sup>th</sup> Edition, the word “synthetic” denotes of, relating to, or produced by chemical or biochemical synthesis. Moreover, the Dorland’s Medical Dictionary defines “synthetic” as pertaining to, of the nature of, or participating in synthesis or produced by synthesis. As acknowledged by the

Examiner, the tissue described in Kleinman et al. is isolated from a natural source, i.e., animal bodies. That is, the tissue described in Kleinman et al. is not produced by synthesis, and thereby is not synthetic. It is also important to note that Kleinman et al. do not disclose or suggest a bioactive polymer comprised of at least one peptide and/or protein subunit covalently bonded to at least one polysaccharide and/or proteoglycan subunit, as claimed by the present application.

Miyamoto et al. disclose a crosslinked elastin comprising a water-soluble elastin crosslinked with a water-soluble crosslinking agent as well as a process of making the crosslinked elastin. Chudzik et al. is directed to a crosslinkable macromer system and methods of preparing the system. Neither Miyamoto et al. nor Chudzik et al. disclose or suggest a bioactive polymer comprised of at least one peptide and/or protein subunit covalently bonded to at least one polysaccharide and/or proteoglycan subunit, as claimed by the present application.

It is axiomatic that a claim is anticipated only if each and every element as set forth in the claim is described in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Since each of the cited references fails to disclose at least one essential feature of the claimed invention, none of the cited references, i.e., none of Kleinman et al., Miyamoto et al., and Chudzik et al., anticipates the claims, as amended.

In view of the claim amendments and the foregoing remarks, Applicants respectfully request that the rejections under 35 U.S.C. § 102 be withdrawn.

### **Claim Objection**

Claim 32 is objected to as allegedly dependent upon a rejected base claim, i.e., claim 31. The Examiner also states that claim 32 would be allowable if rewritten in independent form including all the limitations of the base claim.

As discussed above, inasmuch as Claim 31 is not anticipated by any of the cited references and the rejection thereto should be withdrawn, Applicants respectfully request that the objection to claim 32 be withdrawn as well.

**Conclusion**

In view of the foregoing, it is believed that each ground of rejections set forth in the Office Action has been overcome. Thus, favorable reconsideration and allowance is respectfully solicited.

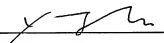
As all remaining issues have been addressed in this paper, Applicants respectfully urge that a Notice of Allowance is in order.

Except for issues payable under 37 C.F.R. 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-0310. This paragraph is intended to be a constructive petition for extension of time in accordance with 37 C.F.R. 1.136(a)(3).

Respectfully submitted,

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